



Federal Communications Commission
Washington, D.C. 20554

August 20, 2014

DA 14-1196
ET Docket No. 13-49

Ms. Jenny Prime
Director, Regulatory Affairs
Public Policy Office
Cox Communications, Inc.
975 F Street NW, Suite 300
Washington, D.C. 20004

Dear Ms. Prime:

The Office of Engineering and Technology (OET) is granting the request of Cox Communications, Inc. (Cox) for a waiver of Section 15.407(a)(1)(i)¹ of the Commission's rules to allow its existing systems that were previously certified for operation in the 5725-5850 MHz (U-NII-3) band to obtain FCC certification for operation in the 5150-5250 MHz (U-NII-1) band.

In your letter filed July 2, 2014, you state that granting this waiver request will allow Cox to operate its existing U-NII-3 band Wi-Fi systems in the U-NII-1 band.² You submit this waiver to allow Cox to operate its U-NII-3 band Wi-Fi systems in the U-NII-1 band with up to 250 mW of conducted power and a PSD of 11 dBm/MHz with a 6 dBi gain antenna. In addition, your request this waiver for 2,346 devices, deployed prior to June 2, 2014, that are not covered by a permissive change. In addition, you provide the general location of Cox's devices by state, as well as the total number of devices per state and request confidential treatment for this information under separate cover.³ You also confirm that all of the devices identified in this request can be reprogrammed to operate in the U-NII-1 band at the 250 mW operational parameters and that the operating power of each of these devices can be adjusted from a central network management system.⁴

In the *First Report and Order (First R&O)* in U-NII 5 GHz proceeding, the Commission adopted rule Section 15.407(a)(1)(a) which allows fixed outdoor access points in the U-NII-1 band at a maximum conducted output power level not to exceed 1 W and a PSD not to exceed 17 dBm/MHz with an allowance for a 6 dBi antenna gain; the rule limits the

¹ See 47 C.F.R § 15.407 (a)(1)(i).

² See Cox Communications, Inc. Request for Waiver of Certain Technical Requirements in UNII-1 Band (Request) dated July 2, 2014, from Jenny Prime, Cox Communications, Inc.

³ See Cox Communications, Inc. Request for Waiver of Certain Technical Requirements in UNII-1 Band – Request for Confidential Treatment, dated July 2, 2014, from Jenny Prime, Cox Communications, Inc.

⁴ See Request at 2.

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maximum EIRP to 125 mW (21 dBm) at any elevation angle above 30 degrees measured from the horizon.⁵ In other words, each outdoor access point must limit the energy directed upward so that, in the aggregate, they would avoid causing interference to satellites operating in the U-NII-1 band.⁶ The Commission recognized that some U-NII-3 fixed access points already deployed could potentially be reprogrammed to meet the new U-NII-1 power limits and thus quickly begin more flexible operation in the U-NII-1 band using this existing equipment.⁷ The Commission stated that, if outdoor U-NII-3 band systems installed prior to the effective date of the new rules were not able to comply with the 125 mW EIRP requirements of Section 15.407(a)(1)(i) to limit energy directed upward, manufacturers or equipment operators could file for a waiver of this provision for operation in the U-NII-1 band,⁸ no later than 30 days after of the effective date of the new rules. The Commission stated that if the waiver is designed to enable existing deployments to operate with up to 250 mW of conducted power and a PSD of 11 dBm/MHz with a 6 dBi gain antenna, the Commission could make a quick and likely favorable good cause determination sufficient to grant the waiver request.

The Commission asked for the following information about the petitioner's existing deployments to assess the waiver requests: the number of devices installed, general location of each deployment, ability to reprogram the devices, and ability to adjust operating power from a central network management system. The Commission concluded that waiver requests meeting these parameters and made within a short period of time are likely to serve the public interest because granting them is highly unlikely to create any risk of harmful interference, given the small numbers involved and the limited departure from the new technical requirements for the U-NII-1 band.⁹ In addition, the comparatively small number of installed devices strongly suggests a negligible risk of harmful interference from allowing this exception and the expedient approval of such waivers would benefit the public by promptly and efficiently expanding broadband use in this band.¹⁰ The Commission delegated authority to the Office of Engineering and Technology to consider and act on all such waiver petitions received within 30 days of the effective date of the new rules, *i.e.*, June 2, 2014.¹¹

We find that the information you provide regarding the existing deployed systems satisfies the requirements the Commission outlined in the *First R&O* for OET to act on your waiver

⁵ See, *Revision of Part 15 of the Commission's Rules to Permit Unlicensed National Information Infrastructure (U-NII) Devices in the 5 GHz Band, First Report and Order*, ET Docket No. 13-49, 29 FCC Rcd. 4127 (2014) (*First R&O*) at 4138.

⁶ *Id.* at 4138.

⁷ *Id.* at 4139.

⁸ *Id.* at 4139 – 4140. See also 47 C.F.R. § 1.3. See also *WAIT Radio v. FCC*, 418 F.2d 1153 (1969).

⁹ See *First Report and Order* at 4139.

¹⁰ *Id.* at 4140.

¹¹ *Id.*

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request, and we conclude that a waiver of Section 15.407 (a)(1)(i) is in the public interest. That is, these currently deployed systems should not pose a threat of harmful interference to the incumbent services in the U-NII-1 band because, as you represent, these systems can be reprogrammed for operation in the U-NII-1 band at the 250 mW operational parameters and the operating power can be adjusted from a central network management system. This waiver applies only to the 2,346 outdoor access points systems at the locations that you identify as being installed in the field as of June 2, 2014, and does not apply to any future deployments. If you have the need to change the location, but not the total number, of your deployments, please provide OET with the modified deployment information. You must demonstrate compliance with the technical requirements through the equipment certification process by filing a permissive change request along with a copy of the approved waiver.

Accordingly, pursuant to the delegated authority in Sections 0.31 and 0.241 of the Commission's rules and Section 1.3 of the Commission's rules, 47 C.F.R. §§ 0.31, 0.241, 1.3, we waive the requirements of Section 15.407(a)(1)(i) of our rules to allow Cox Communications, Inc. to obtain FCC certification, consistent with the terms of this waiver, for the U-NII-3 band outdoor access points you have identified to operate in the U-NII-1 band with up to 250 mW of conducted power and a PSD of 11 dBm/MHz with a 6 dBi antenna gain.

Sincerely,

Julius P. Knapp
Chief
Office of Engineering and Technology